ST. BARTHOLOMEW'S HOSPITAL JOURNAL

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EDITORIAL

London in February is a cold, miserable place. But it is still the city of the bright lights, and there are still as many seductive influences as at any other time of the year. The cinema especially is a warm haven where one can sit and dream escapist visions of the summer sun, aided by all the resources of Hollywood.

Last month saw the first burgeoning of a film society in Barts, so now we can escape from our own doorstep on our own doorstep.

The vigour of the student body is in many ways reflected by the number and the vigour of the societies which it supports. The Abernethian Society, and the Physiological Society are as well-run and as well-supported as ever. The Photographic and Natural History Societies are flourishing. Of the learned societies only the Junior Osler Society, whose object is the pursuit of medical history, is languishing somewhat.

The Film Society is to be welcomed to this number, even though it may not be as praiseworthy to be entertained or educated by what is projected on to a screen as to make the effort oneself as in the societies mentioned above, or to entertain everyone as the Amateur Dramatic Society and Gilbert and Sullivan Society do. It is also a pity that we should be encouraged to stay within the bounds of the hospital even more than we do already. The city around us is the cultural and artistic, as well as the political capital of the Commonwealth, and many opportunities to take advantage of this are lost by those whose horizons are limited to within a few hundred yards of West Smithfield.

However, if there may be some regrets that film-going should become an internal affair in Bart's. There can be none about one thing, and that is that membership of the new society should be open to the Nurses; who have relatively little to amuse them out of working hours in the hospital.

There has been talk that the new society will in some way raise the cultural level of the hospital, or of the students in it. This is a very wrong-headed view to take, and derives from the erroneous modern idea that "culture" is an abstract thing. Just as painting, music, poetry and all the arts have become divorced from down-to-earth human experience so has the whole idea of culture. Many now think that it is more elevating and stimulating to look at an Aztec vase in a Bond Street Gallery for ten minutes than to talk to a beggar in the street for the same length of time. The films that Film Societies show are by no means of that same nature as Aztec vases, but those who watch them should be prepared to admit that they are indulging in escapism and not culture.

It is not from this narrow view of Art and Culture that the idea has grown that Medical Students are half savages. But the purpose, of artistic culture is to explain nature, and man, to man. Though modern artists do this in a very rarefied way, the study of medicine does it even better, and those effectively trained as doctors should have a much deeper and more complete

understanding of man than, to take an extreme example, the young aesthete of 1959, who sits in a spindly chair, sipping a glass of Château Blank, skimming through a book of literary criticism while listening to stereophonic musique concrète from the machine in the corner.

So let us remember that if we are chasers after artistic culture there is often more to be learnt in every way from the boring old malingerer in Out-Patients than from any work of art. After all, one of the best films of all time is about a day in the life of a boring old man.

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Fifty Years Ago

The principle contributions to the Journal of February 1909 were papers by W. P. Harringham, M.D., F.R.C.P., T. J. Horder, M.D., F.R.C.P. and W. Girling Ball, F.R.C.S., D. W. Hume, M.B., B.S. and G. H. Dive, M.R.C.S., L.R.C.P., and A. Abrahams. Dr. Harringham's article was entitled " National Deterioration and the Need for Physical and Military Training". In it he contrasted the poor physical trim of the average English urban lad with his German counterpart and suggested that the superior fitness of the latter was due to his compulsory military training. The conclusion drawn was that if there was a National Army in England " it would be an enormous measure of Public Health".

The next article in the Journal was by Dr. Horder and Mr. Girling Ball on " The Preparation and Uses of Bacterial Vaccines". It is followed by some very interesting clinical cases presented by Mr. Hume and Mr. Dive. Mr. Hume described " Two cases of the Appendix Vermiformis in the sac of an inguinal Hernia " in neither case was the appendix infected, and in fact, they were only found at operation. His third case was a remarkable one of a 39 year old caretaker who was admitted with generalised abdominal pain of some 14 hours' duration with bouts of vomiting, and not having had his bowels open or passed flatus during this time. He had had a dragging pain in the right iliac fossa for the previous month, and a right inguinal hernia for some years.

At operation a strangulated loop of small intestine was found in the hernial sac, the cause of the strangulation was the appendix which lay just inside the internal inguinal ring. At the same time the appendix had been strangulated by the loop of small intestine. Appendicectomy and radical cure of the hernia were performed. The patient made an uneventful recovery and was discharged exactly one month later.

The article by A. Abrahams (later Sir Adolphe Abrahams) was entitled " High Speed Photography " and contained numerous photographs of historical interest showing athletes in action.

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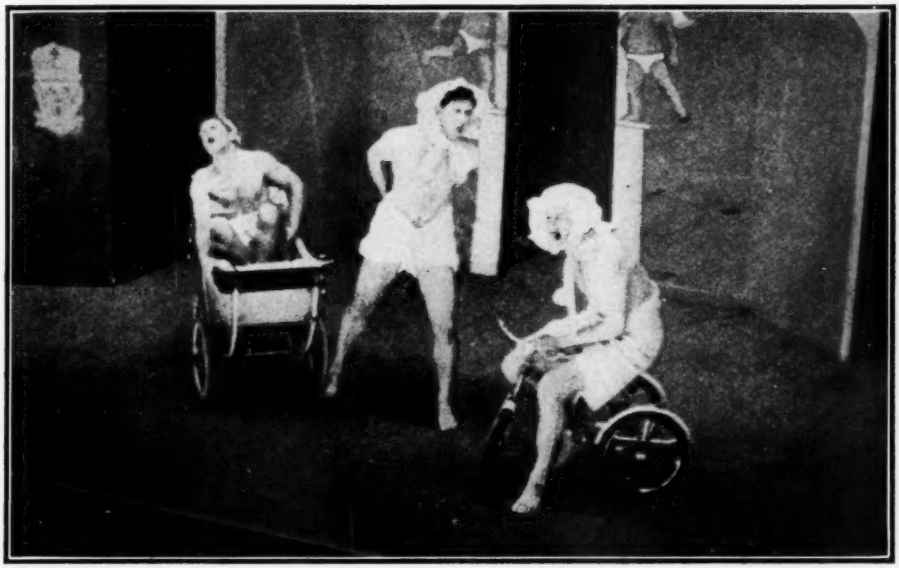
Christmas Ward Shows

The Square was deserted. The goldfish were instructed to Turn Left by a notice pushed well into the Fountain, and a curious medley of sounds floated over the parked cars. The Ward Shows were in full swing. Good, but not-so-clean fun was being had by all.

The pattern of the Shows quickly became apparent as the subjects nearest the Students' hearts were faithfully depicted. The Students dealt thoroughly with food, the deficiencies of Public Transport, their own prospects in Examinations and the fight for House Jobs, the behaviour and vagaries of their seniors and censors and, of course, the Nurses and Sisters. Curious too how Students read advertisements so carefully. The Shows would have lightened the heart of any Advertising Magnate.

The form of a good Ward Show quickly becomes apparent to one who sees them all. An important point, well exploited by the Kid's Show is that on the very cramped stages on the wards, scenery which provides several Entrances and Exits makes for far better continuity. No audience enjoys contemplating an empty stage for long and it is hard for a compère to plug the gaps. On the whole too, there was not enough movement during the songs. A simple dance, during or between verses can improve a chorus enormously and would provide a welcome change from a U-shaped ring of singers whose feet are rooted to the spot. A rhythmic swaying from the knees is hardly enough. The choruses of the House Show, where the vast cast processed around the stage very skilfully, and the song ' Say Yes To Our Dear Dean ' from the Finalist's Show were excellent examples.

Particularly encouraging this year was the emergence of considerable talent among the



Mike Constable, Paul Cassell, Chris Craggs (acting F.R.C.S., M.D.) as three sordid kids

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less experienced firms. The song ' Excelsior ' from the Outpatients was most splendidly and very funnily performed by Bob Davies and David Gibson as straight and funny Opera Singers. Chris Hood in the Dressers' Show had two solos in which he sang and played the piano in a highly polished and competent manner.

The Midder and Gynae Show gave a most enjoyable performance. A delicious quartet murdered a part song in perfect style, and then the lives of doctors in Roman times and those of Gynaecologists today were carefully portrayed. Janice Swallow gave us a glimpse of life as a District Nurse in the Mile End Road and was followed by Gbemiga Alabi who performed a most interesting and unusual tribal dance. It was a pity that his supporters were so unfamiliar with the tom-tom as to prevent him from making it the success he deserved. Then came their *pièce de résistance* and one of the best numbers of all the Shows. How will the Ladies' Hockey Team dare to take the field next year after their merciless exposure in Ballet and Song?

The Clerks betrayed the Hospital Eternal Triangle in a sketch about a nurse, a houseman and a wicked registrar. It was a pity that they chose to do so in Silent Film style for, in spite of their efficient performance, and miming is more difficult than it looks, it did not seem quite the right style for the occasion. With some experience behind them they will do better next year and should look forward to it.

The Finalist's Show dealt with wider matters than Hospital affairs. We were treated to a nauseating Dress Designer, adjured to be ' Eaters at Peters ' and heart-rendingly implored as ' Men of Barts ' to ' keep away from sin ' and shun A.I.D. ' Top People Take the Times ' they cried, but the gentleman in the middle apparently needed something else, namely Amplex, as well.

One of the best shows was the Kid's Show ' Tu'ssaudid for Kids'. The excellent set has already been mentioned and their continuity was first class. This was a show with a thread to string the sketches and songs together. Bare though the thread became at times, it always is a help in making a show

Mike Hall-Smith and his Housemen's skiffle ensemble

complete. Various historic, imaginary, ancient and modern members of the Baker Street Waxworks were brought to life. Particularly memorable were Sir Walter Raleigh who sang a most charming song, Nell Gwynne who sang a not-so-charming but highly entertaining song, and King Charles who doffed his finery to sing a song in the neo-skiffle style. ' Top of the Pops ' it was called and splendidly appalling it was.

Guy Fawkes, ' It wasn't a Member who cried "I Spy Strangers", but the spirit of wicked Guy Fawkes', made a welcome return to life and blamed the failure of his plot on W.D. gunpowder.

One of the best of all the songs and outstanding in the whole of the Ward Shows was a violent diatribe sung by three precocious babes who threatened a hideous revenge on their doctor for the suffering he inflicted on them with penicillin. I doubt whether Dr. Harris has slept well since.

To have a girl as talented as Wendy Donaldson in their cast is a great advantage to any show, and the Kid's Show earned themselves an extra performance on Boxing Day, a fine compliment well deserved.

Just what, one wondered watching the House Show, are the qualities required of a would-be Houseman? Once again, bubbling over with a wealth of talent, they showed everyone the way. Slick, quick and sure-footed, their half-hour was pure joy. The House seem to understand perfectly what is required, good tunes, good words and something a little extra, provided this time by a saxophonist and a trombonist.

Outstanding were the broken-hearted plea of two nymphs for a ' Hunk of Man ' and the unfulfilled wish of three busty and pustular ladies for beauty and a title. Men dressed as women are not really funny unless they are fairly undressed as well.

The House too was the only Show to sing a serious song ' The Honeysuckle Song', and very brilliantly sung it was too. To be serious and get away with it is nearly impossible in the excited and unnatural atmosphere which pertains in the Hospital on Christmas Day, but this song held the audiences still and spellbound. Bernard Badley sang the solo in a light and pleasing tenor.

Serious thoughts were soon swept away by the exposure of the activities of two ' Specialists of Harley Street', and then Mike Hall-Smith in ' Make Believe ' showed us

another aspect of the modern popular singer. With his fair hair carefully combed into a quiff and his baby face wreathed in sickening smiles, he drooled over the microphone, waggling his hips and knees till they seemed nearly to part from his body.

It would be wrong to write an account of the Ward Shows without mentioning the pianists. These unseen and unsung gentlemen are the most vital part of any show. A pianist is a vertiable *sine qua non* and a good one may be hard to find. All thanks to them, for they did splendidly this year.

Everyone enjoyed themselves on the ward stages, even the editor of this staid Journal was to be seen walking the boards, for Ward Shows are a friendly institution, a semi-legalised opportunity for the junior to guy the senior and for the well-established to be pilloried. There are some black spots perhaps. One felt sorry for the poor fellow who admitted with a doleful countenance that he was a 'wet blanket' only to be greeted by lusty cries of 'We know. We know' from Sister Butlin. The Pot-Pourri Committee too, hurrying, notebook and red pencil in hand, from Show to Show, and winking and nodding in the corners when they meet, make it plain that more serious matters lie ahead. Later on Boxing Day when they have crept away to deliberate behind locked doors, and when the tumult and the shouting have died, one may sit in the dusk in the Square and feel that Barts, the Ancient and Royal, is a little richer and, perhaps, a little wiser than before.

G.F.A.

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Rugby Club

The Annual Ball was held at Charterhouse Square, on Friday, December 5, and over one hundred couples enjoyed dancing to the music of Ken Stanley and his band. An excellent buffet prepared by Miss Barbara Barnard and her willing helpers was followed by an amusing and original cabaret presented by Mr. Michael Moles.

The dancing continued until 2 a.m. and the effects until much later.

The Rugby Committee would like to express their thanks to Mr. A. W. Kilroy for his untiring efforts in ensuring the smooth running of the Ball.

Natural History Society

The following were elected as officers of The Natural History Society for the year 1959.

CHAIRMAN: C. Greaves.
HON. SEC.: J. Durston.

NOTICES

Changes of Address

MR. S. L. HIGGS:

Temporary London address; 24 Harley Place, W.1. *Country address;* Phoenix, Roman Landing, West Wittering, Sussex.

DR. GEOFFREY DAWRANT:

Perivale Maternity Hospital, Greenford Middlesex.

Appointments

DR. W. ROSS ASHBY has been appointed a director of the Burden Neurological Institute, Bristol.

House Appointments

1st January to 30th June, 1959

Dr. E. R. Culliman
R. G. White
N. C. Roles (until 31/3/59)
D. P. Wells (from 1/4/59)

Dr. A. W. Spence
D. A. Birkett
R. C. Cook (until 31/3/59)
D. C. L. Savage (from 1/4/59)

Dr. R. Bodley Scott
B. Richards
A. Whitworth (until 31/3/59)
A. S. Tabor (from 1/4/59)

Dr. G. W. Hayward
J. E. Stark
R. I. D. Simpson (until 31/3/59)
T. W. Gibson (from 1/4/59)

Dr. E. F. Scowen
C. A. C. Charlton
J. A. C. Neely (until 31/3/59)
A. B. M. McMaster (from 1/4/59)

Mr. J. P. Hosford
R. J. Mitchell
D. P. Wells (until 31/3/59)
N. C. Roles (from 1/4/59)

Mr. C. Naunton Morgan
J. Hedley-Whyte
D. C. L. Savage (until 31/3/59)
R. C. Cook (from 1/4/59)

Mr. A. H. Hunt
C. J. Carr
A. S. Tabor (until 31/3/59)
A. Whitworth (from 1/4/59)

Mr. A. W. Badenoch
P. J. Ball
T. W. Gibson (until 31/3/59)
R. I. D. Simpson (from 1/4/59)

Prof. Sir J. P. Ross
R. B. Harcourt
A. B. M. McMaster (until 31/3/59)
J. A. C. Neely (from 1/4/59)

Casualty H.P.
J. S. Price

Children's Department
J. B. Nichols
T. S. Matthews

E.N.T. Department
R. G. L. Smith (until 31/3/59)
D. J. C. Davies (from 1/4/59)

Skin & V.D. Departments
M. A. Newton

Eye Department
J. D. Salmon

Gynae. & Obs. Department
L. J. Chalstrey } Interns
J. Q. Creightmore }
R. Pilkington Junior H/S

Anaesthesia
G. B. Gillett
A. M. Hall-Smith

Dental Department
G. Manara (until 30/4/59)

Orthopaedic Department
A. J. P. Campbell

Casualty House Surgeon
J. K. K. H. Chong

At Hill End Hospital

E.N.T. Department
D. J. C. Davies (until 31/3/59)
R. G. L. Smith (from 1/4/59)

Orthopaedic Department
M. E. J. Hackett
H. M. Richards

Thoracic Department
D. R. Dunkerley
J. R. Strong

Department of Neurological Surgery
C. F. Allenby
D. J. Price

Anaesthesia
G. B. Gillett
A. M. Hall-Smith

ANNOUNCEMENTS

Engagements

GODRICH—MATHIESON.—The engagement is announced between Dr. John Edward Godrich and Chloe Hazel Jane Mathieson.

ROLES—DONALDSON.—The engagement is announced between Dr. Nicholas Crosbie Roles and Wendy Donaldson.

Births

HUDDLESTONE.—On December 3rd, to Freda, wife of Dr. C. Huddlestone, a son (William).

LAURENT.—On December 10th, to Maureen, wife of Dr. J. M. Laurent, a son (Richard Jacques).

MARSHALL.—On December 12th, to Rosemary, wife of Dr. Robert Marshall, a daughter.

PORTELLY.—On December 16th, to Wendy, wife of Dr. John Portelly, a son.

WYNNE-JONES.—On December 3rd, to Barbara, wife of Dr. Philip Wynne-Jones.

Deaths

CLARE.—On November 12th, Thomas Charles Clare, M D , F.R.C.S., aged 77. Qualified, 1905.

CURTISS.—On December 11th, Edgar Stuart Curtiss, T.D., M.B., B.S., F.F.A.R.C.S., Qualified 1926.

POWER.—On December 26th, Air Vice-Marshal D'Arcy Power, C.B.E., M.C., M.R.C.S., L.R.C.P., aged 69. Qualified 1914.

WALL.—On November 25th, Austin Darley Wall, F.R.C.S. Qualified 1918.

OBITUARY

Mr. James Elliott

The sudden and tragic death of JAMES RAWLINGS ELLIOTT, F.P.S., D.B.A., Chief Pharmacist of St. Bartholomew's Hospital and Lecturer in Pharmacy to the Medical College, on December 6th at the early age of 53, came as a great shock to us all. Pharmacy in general, and hospital pharmacy in particular, has been deprived of one of its most earnest workers, whose standing in the profession was widely recognised.

Mr. Elliott had been Chief Pharmacist to St. Lukes Hospital, Chelsea; Mile End Hospital; Lambeth Hospital and Charing Cross Hospital. He undertook a major role in pharmaceutical public life, devoting a great deal of his time serving on various committees. He was a member of the London Pharmaceutical Committee; the Surgical Dressings Sub-Committee of the British Pharmaceutical Codex; a technical committee of the British Standards Institution; the London Teaching Hospitals Joint Contracting Committee; Drug Nomenclature Committee of the British Pharmacopoeia Commission, and of the Pharmacy subcommittee of this Hospital. He had also been a Registrar and Vice-President of the Guild of Public Pharmacists.

Mr. Elliott had an immense enthusiasm for anything with which he had to deal, whether it was pharmaceutical or the statistical interpretation of various problems. He was eager to help others, but could not tolerate inefficiency, particularly when rules and regulations were involved, and he never lost the opportunity to bring anything of this nature to light, especially if the occurence had been to the detriment of the patient.

His manner was quiet and courteous and he was a man of absolute integrity with a very highly developed sense of duty.

To one who has been associated with him for many years, his quiet observations, utter dependability, and clearly expressed views will be greatly missed. Indeed, Pharmacy has lost a stalwart member, whose death has created a breach that will be very difficult to fill. His colleagues and friends throughout the country will mourn his passing and sympathise deeply with his widow.

CALENDAR

February

Tues. 3—Squash *v* Middlesex Hospital **(H)**
Wed. 4—Ladies' Hockey *v* St. Mary's **(H)**
Thur. 5—Soccer. Oxford Tour commences.
v Trinity College **(A)**
Squash *v* U.C.H. **(A)**
Fri. 6—Soccer *v* Wadham College **(A)**
Sat. 7—Dr. A. W. Spence on duty
Mr. C. Naunton Morgan on duty
Mr. R. A. Bowen on duty
Rugger *v* O.M.T. **(H)**
Soccer *v* Oriel College **(A)**
Hockey *v* Hampstead 2nd XI **(A)**
Ladies' Hockey *v* Reading University **(A)**
Mon. 9—Squash *v* Westminster Hospital **(A)**
Sat. 14—Dr. G. W. Hayward on duty
Mr. A. W. Badenoch on duty
Mr. R. W. Ballantine on duty
Rugger *v* Streatham **(A)**
Hockey *v* University College **(A)**
Ladies' Hockey *v* Lensbury **(A)**
Tues. 17—Squash *v* St. Thomas's **(H)**
Wed. 18—Ladies' Hockey *v* Royal Holloway College **(A)**
Sat. 21—Dr. E. R. Cullinan on duty
Mr. J. P. Hosford on duty
Mr. C. Langton Hewer on duty
Rugger *v* Oxford University Greyhounds **(A)**
Soccer *v* Old Josephians **(H)**
Hockey *v* Orpington **(H)**
Ladies' Hockey *v* Middlesex Hospital **(H)**
Tues. 24—Squash *v* Bank of England **(A)**
Thur. 26—Squash *v* Roehampton **(A)**
Sat. 28—Medical and Surgical units on duty
Mr. G. H. Ellis on duty
Rugger *v* Treorchy **(A)**
Hockey *v* St. Mary's Hospital **(H)**
Ladies' Hockey *v* K.C.H. **(H)**

March

Tues. 3—Squash *v* I.C.I. **(H)**
Wed. 4—Soccer *v* R.N.C. Greenwich **(A)**
Squash *v* Escorts **(H)**
Sat. 7—Dr. R. Bodley Scott on duty
Mr. A. H. Hunt on duty
Mr. F. T. Evans on duty.

Dr. GEOFFREY BOURNE

We are very glad to be able at last to print this appreciation of Dr. Geoffrey Bourne on his retirement from the hospital:

Geoffrey Bourne, until his retirment in September last, Senior Physician to the Hospital and the first physician in charge of the Cardiological Department, was born in London in 1893. He came to St. Bartholomew's from Highgate School shortly before the first World War with a classical scholarship. His career as a student was interrupted by an attack of diphtheria following which, as he himself has recorded, a systolic murmur and a propensity to paroxysmal tachycardia were noted. It is possible that these phenomena aroused his interest in cardiology; it is certain that they debarred him from military service and they may, if we read his hints aright, have cut short a promising athletic career. If his medical advisers at that time had had the benefit of his own mature opinion, it is likely that these restrictions would not have been imposed. They may indeed have deprived the Hospital of a Bannister and the Army of a Montgomery, but they achieved the more productive result of directing his mind into academic channels. In 1917, he qualified having been awarded in succession the Kirkes, the Burrows and the Skinner prizes and the Brackenbury Scholarship in medicine. In the following year, he acquired the diploma of the M.R.C.P. and in 1920 he proceeded to the doctorate of medicine of the University of London. He was elected a fellow of the Royal College of Physicians in 1929.

During his formative years, he came much under the influence of J. H. Drysdale, a bedside teacher of force and character, who has become as much a legend on the medical side of St. Bartholomew's as C. B. Lockwood did on the surgical. Geoffrey Bourne served him as house physician and as chief assistant; he has recorded many stories of Drysdale and it has been said that many of those mannerisms which we have come to regard with such affection are derived from his old chief. It should be made clear that this resemblance extends only to Drysdale's more amiable characteristics; stories still current about him reveal an acid wit, a tongue like a whip lash and a singular lack of human charity. He was of the generation which feared no criticism and his intercourse with his professional colleagues still echoes down the years as a staccato exchange of insults. Bourne's tact and charm have been features of the Hospital since his appointment to the staff and there can be few who have worked with him who cannot recall with gratitude instances of his grace and kindness.

Nevertheless, he inherited Drysdale's critical faculty and his ability to distinguish significant from insignificant; and he owes

Dr. Geoffrey Bourne

to him his grasp of fundamental principles and his pleasure and competence in teaching medicine at the bedside.

He early became interested in cardiology working first as Lawrence Research Scholar and later on the Medical Unit which had only recently been formed. In 1926 he was awarded a Rockefeller Travelling Scholarship and spent a year working in St. Louis. On his return, he was appointed to the staffs on the East London Hospital for Children and the newly built King George V Hospital, Ilford. For a time he held the anomalous position of Chief Assistant to the Cardiographic Department although there was no Officer in Charge. Indeed, he was the founder of what has now become the Cardiological Depart-

ment and the first Physician-in-Charge. In 1930, when Dr. (later Sir Walter) Langdon Brown retired, he was appointed an Assistant Physician to the Hospital.

During his stay in the United States, he met his first wife, an American lady of great intellectual attainments who had trained as a biochemist. Many of his friends will remember with pleasure the charming hospitality of their delightful home in Hampstead. She died after a short illness in 1952. He married again a few years later and it has been a delight to us all to see the happiness he has once more found.

Geoffrey Bourne must be regarded primarily as a general physician with a special knowledge and interest in cardiology. His basic training and for many years his routine practice was in general medicine, but most of his publications concern heart disease. The breadths of his interests, however, is reflected not only in his professional but in his private life. Fly fishing claimed him from an early age and many medical art exhibitions have established his outstanding ability as a painter.

Amongst Hospital activities that of which he is most proud is his record as Captain of the Past Cricket XI; on two occasions his team, without external assistance, beat the Hospital First XI. He has taken a great interest in the activities of the Musical Society and has served several terms as Chairman of the Committee. Finally, his long service and great help as Chairman of the Publication Committee of this Journal deserves full recognition.

There can be few men who serve an institution such as this Hospital for forty years and retire leaving behind them nothing but regrets, goodwill and memories of cheerful unassuming hard work, but Geoffrey Bourne is one of them. It is difficult when one looks at him to believe the hard facts of chronology but we all hope that his youthful face and figure mean for him and Mrs. Bourne many more years of happy contented existence.

THE BIRTH OF THE CARDIOLOGICAL DEPARTMENT

by **GEOFFREY BOURNE**

The father of modern cardiology at St. Bartholomew's Hospital was undoubtedly Dr. John Hannah Drysdale. Although a respecter of tradition, he was a keen recipient of new ideas and a sound judge of their potential value. Thus, in 1913, when the earliest Cambridge electrocardiograph became available, he purchased a model, being both generous and wealthy, and gave it to the hospital.

The machine was placed in the Physiology Department so that its modernity might not offend too brusquely the susceptibilities of his more conservative colleagues. The Histology Department now lives on that site, above the library, and up two flights of the stone staircase.

The instrument itself was one of the first three used in London. It stood on a long narrow table supported by shaped iron legs, and consisted of a string galvanometer, a rotating timing device, a carbon arc light and a gravity-worked plate holder. The moving recording part was a quartz fibre, or string, so thin as to be very fragile, whose shadow, moving horizontally, played over the slit of the camera. It was said that the desired thinness of the quartz was achieved by shooting it, attached partly to an arrow, while still in its molten state. The speed of rotation of the timing wheel was governed by a make and break circuit connected with a large tuning fork. The galvanomator magnet, pierced for the light beam, was a massive object. The whole machine was solidly immobile, and a great contrast to the modern portable models. Nevertheless, the tracings from it were beautifully accurate and detailed. The switchboard was so complex that at first nobody exactly knew its hidden layout. This was eventually revealed after an X-ray photograph had been taken. The pioneers in its use at Bart's were Horwood, Professor of Physics, and Trevan, then a demonstrator of physiology. The former stayed on, and became a renowned

figure in the later development of X-ray therapy, and the latter went to Burroughs Wellcome, finishing his career there as Director of Research.

How I first became associated with the electrocardiograph in 1916, I do not clearly remember. I suspect that a prize essay I wrote on " Coupling of the Heart Beat ", may have suggested to the authorities that I was a suitable junior accolyte to the mysteries. Only a small minority of the physicians had, at that time, any idea as to the clinical value of electrocardiography. Drysdale, Langdon Brown and Horder alone knew what auricular fibrillation was, although examples of that condition are now of common daily occurrence.

The few patients to be investigated were, of course, brought to the machine, and by the time the two porters had carried an obese and possibly oedematous character up the two stone flights in a heavy oak throne, their shortness of breath and congested features suggested that they were the more eligible candidates for examination.

The patient was deposited in another, more stationary chair, near to the electrocardiograph, his bared forearms and left leg were immersed in pots of saline solution, of necessity cold, from which leads went to the switchboard. The electrocardiogram was then taken. This, however, did not always follow, for the hidden personal idiosyncracies of the apparatus not infrequently introduced into the procedure unsurmountable difficulties. When this happened, the now rejuvenated porters would once more take up their burden, and would return him or her, this time downstairs, to the ward, to return another day.

Attempts to trace the mechanical fault would then begin, but might, after a long time, remain fruitless, and would have to be abandoned. In a day or two, filled with foreboding, we would try again. The Gremlin, then unchristened, would have fled, and the electrocardiograph would work perfectly once more.

In the early 1920s it was decided by the authorities that a less remote situation might be more convenient, and the apparatus was moved to a home under the West Wing. Here, a new, but still massive, machine stood, together with a couch for the patients, one or two chairs, a plug for the leads connected with those wards which were wired, and some drawers and cupboards for duplicate tracings. A photographic dark room was adjacent. The whole was enshrined in the monastic and groined arches of the eighteenth century basement.

The new model was simpler and more reliable. Furthermore, a technician was appointed, and I became chief assistant—to myself—and the department was born.

It was for years termed the electrocardiographic department, its function being officially restricted to the taking of electrocardiograms. No physician was in charge —indeed, there was no one qualified to undertake that function, except for the three seniors I have already named, and who were contented with their duties as general physicians. For administrative purposes it was under the aegis of the professor of medicine.

The technician was Joe Board, one of the nicest and most capable men I have ever known. If he had had the education and the chance, he would have made a very able doctor. As a compensation, he succeeded in entering his daughter at the Royal Free Hospital, for what has been a successful professional career. At the times set aside for taking electrocardiograms, the ambulant patients and those in wheeled chairs would be brought to the basement. Those who were too ill to be moved, had their tracings taken in the wards.

These, at least the medical wards, were suitably wired, so that by wheeling the bed to a special plug, the leads could be attached to the wrists and ankles, and a connection made direct to the machine many yards away in the basement. Joe would then telephone to me where I waited in the cloistered bowels of the old building, and the tracing would be taken from afar.

Those were the days of the three lead electrocardiogram, and of easy interpretation. Cardiac irregularities such as premature beats, paroxysmal tachycardia, flutter, fibrillation, heart block and left or right axis deviation covered most cases. Not until the late 1920s were the typical changes of myocardial infarction gaining recognition : the unipolar technique, introduced by Wilson, was yet to come after a further period of twenty years. A further ten years has seen the migration of the department to its present site, the allocation to it of a senior registrar. four technicians, a nurse and other helpers. Its functions, too, have grown, and include such techniques as cardiac catheterisation

and arterial flow measurement. In the not too distant future, a larger and more modern home for it may be forthcoming in the new block, where its closer and more necessary association with the department of cardiac surgery may be achieved.

Among the patients who stand out in one's memory are three. The first is Jacob Bedner, one of the first cases of auricular flutter ever treated by modern methods, to whom reference has already been made in another chronicle. The second was Francis Aylott. He suffered from prolonged attacks of auricular paroxysmal tachycardia with a high rate during which pulsus alternans appeared. He was a phlegmatic soul with a slightly unprepossessing countenance with a depressed nose, some keratitis and other stigmata. His description of the end of his attacks finished with the words, " And then I bulges up the wind".

The third was William Cuppage. He had complete heart block, and was one of the cases of that condition investigated by Ivan de Burgh Daly and myself at that time. He was a railway man with a massive frame and an unpredictable and loud vocabulary. He happened to be in the Rahere Ward at the time when Edward VIII, as Prince of Wales, became Patron of the Hospital. Part of the induction ceremonies consisted of a tour of the wards. William Cuppage was in the state bed at the end of the ward tucked away, as Drysdale hoped, from the processional route through the ward. However, Edward, with his flair for departing from routine, made a bee line for William Cuppage, to Drysdale's consternation. " Well, sir," said the Prince, " what's the matter with you ? " " 'Eart blockage, sir." " Oh," said the Prince, with quite good clinical sense, " I suppose you sometimes get short of breath." " No, sir, sometimes I falls dahn and faints." At this point Drysdale interposed, hoping to avert some incident of lese-majesté, and addressed Edward with less than his usual clearness and equanimity as follows : " The heart, you understand, sir, is divided into two sets of chambers. Sometimes the impulse does not get through." The Prince, sensing deep waters, rapidly terminated the interview and moved on.

MANTOVANI

by **P. J. WATKINS**

Early this year, I applied to the B.M.S.A. for one of the clerkships which they arrange on an exchange basis in almost any of the Western European countries. Two years ago I had spent much of the summer in Italy, and had been fascinated by the country and the people. Wanting to follow up my first impressions, I applied for a place in a hospital in Rome, and was at first rather disappointed when all that could be arranged was one in Mantua. I studied the map and found that it lies about 25 miles south of Verona in the flat, hot valley of the Po. I discovered that it was to Mantua that Romeo was exiled, that " Two Gentlemen of Verona " spent some of their time in the forests near Mantua and, most important of all, that in Mantua is the house of Verdi's immortal fool—Rigoletto. I accepted this clerkship, which was for the whole of August. Busman's holiday though it may have been, I would recommend it as a most valuable experience, for here we had at our disposal a hospital of about a thousand beds, an unlimited opportunities to examine patients unmolested by a hundred other clerks and dressers (an advantage it probably had over similar work in Rome) ; here, also, I had a unique opportunity not only to observe the practice of medicine in the hands of the Italians, but also to gain a greater understanding of the people, their customs and language.

First, a word about this town, older than Rome itself, lying in a key position in the plain of Lombardy, Mantua lies on the River Mincio, which expands into three lakes (or rather swamps), surrounding it on three sides and thus affording it the protection which enabled the Mantovani to resist many of their would-be conquerors. Until it became a part of the Austrian Empire in 1799, Mantua was the capital of one of Italy's many independent states, and

frequently at war with its neighbours. It is famous as the birthplace of Virgil ; the trovatore Sordello about whom Browning had so much to say, was a Mantovano ; and, from the 14th century, the Gonzaga family dominated its history through war and peace, through plague and prosperity. It was for the Gonzagas that one of Europe's largest palaces was built, that architects and artists of the calibre of Alberti, Mantegna and Giulio Romnano created many of their finest works. The great Isabella d'Este further enriched Mantua with fabulous works of art (by spending vast sums of money) —most of which found their way to the Louvre after a brief visit by Napoleon. Among the few great treasures which remain are the splendid tapestries after the cartoons by Raphael (which can be seen today in the Victoria and Albert Museum).

The hospital (whose foundation dates from the Renaissance) is not a teaching establishment, except for the school of Obstetrics, which comes under the direction of the University of Milan. Each department is in the care of a " Professore "—a title which does not signify a teaching status, but which is earned as a result of a certain amount of original work and, finally, success in certain examinations. The younger doctors are not so fortunate as ourselves, and it seems strange to us that for several years after qualifying, an Italian doctor may remain unpaid. The reason for this is, of course, that there is a considerable surplus of doctors, and while there are a fixed number of paid posts in each hospital, further appointments go without renumeration, which is indeed an unfortunate state of affairs for men who have undergone so many years of training.

There is no University at Mantua, and would-be medical students go to some of the ancient Universities nearby—Padua Bologna, Milan or Pavia, to mention some of the most important. The great medical tradition at Padua established by names such as those of Vesalius and Malpighi, Linacre and Harvey, is maintained today by the medical faculty, which numbers 3,000 students out of a total of 11,000. It was here that Fabricius d'Acqua Pendente established the world's first anatomy theatre which can still be seen—a wooden, tiered circular structure, with standing space for about 200 : at the centre the dissections were carried out according to the current textbooks. Bologna continues to be one of the leading schools in the orthopaedic field and, indeed, Mantua's own orthopaedic department benefits from such leadership, and is modern and efficient. These Universities open their doors to all who qualify for entrance, provided they can pay their way, and it is this which is the only real limiting factor to the number of Italian students. Perhaps it provides one of the reasons for the very large number of doctors.

The nursing staff is not so plentiful. I was interested to see that most of the duties connected with food and linen were in the hands of Nuns whose working hours would make most of us shudder. In a country where psychological medicine is almost non-existent, I am quite certain that these devoted women bring much consolation to the many patients who are not at all happy in hospital. Otherwise there were, for the most part, male nurses for the men, which, to my mind, is not an altogether satisfactory idea ; for some reason unknown to myself, young ladies do not seem to take to nursing as they do in this country.

It was amusing to be given a room in the obstetrical department (an experience, I imagine, not shared with many !) ; my companion was a Norwegian student from Oslo. We were welcomed by the Professore, who allowed us to visit any department which was of interest to us. We had our meals at the " Mensa " with most of the younger doctors, who were all extremely kind to us. Some days began as early as 6 a.m., so that operations could be completed before mid-day, by which time the heat was intolerable. There were usually two ward rounds each day, and many of the doctors took great pains to explain the cases to us in detail—not an easy matter when Italian and some French were usually our only means of communication. In the heat of the afternoon a siesta became a necessity ; it served also to make up for shortened nights, for the Italians seem almost more active in the cool of the night—a meal at 2 a.m., while not usual, was not impossible. Attending in the operation theatre at 6 a.m. was often difficult, if not impossible !

The wards were large and airy, though somewhat overcrowded, and cases of every kind were to be found in every ward. I tried in vain to discover how much trouble occurs from cross-infection : I was assured that the sun is an excellent sterilising agent ! There does not yet appear to be a prevalent

resistant organism, and penicillin and the other antibiotics are used liberally and successfully. The epidemiological picture was, however, interesting to observe. I was particularly impressed by the enormous number of jaundiced patients, the cause of which was not only the extremely common virus of infective hepatitis, but also the spirochaete of Weil's disease or Leptospirosis. This organism infests the lakes and rice-fields which surround Mantua—and, indeed, I spent an anxious fortnight (the incubation period of this disease) after a swim in the lake some days after my arrival. However, treatment of the disease with penicillin seemed satisfactory, and the mortality rate seemed to be negligible. Two cases of hepatoma were of particular interest, because of their rarity.

The parasite diseases seem to have disappeared from North Italy, although it is not many years since malaria was rampant in the surrounding marshes. Common were cases of typhoid and brucellosis (or undulant fever), though sometimes the serological diagnosis appeared doubtful, and haemocultures were negative, and I began to wonder about the true incidence of these fevers. I was interested by the fact that there still seems to be a child incidence of polio, which contrasts with the young adult susceptibility now to be found in this country: perhaps this reflects the extent of the poverty which still afflicts Italy.

We were allowed a great amount of leisure, and spent most of our weekends away from Mantua. We were invited by our Professor to water-ski on Lake Garda —an unforgettable experience on one of Italy's most glorious lakes. "Aida" in the old Roman arena of Verona, watched by a crowd of 30,000, was incredible in its dramatic impact. Padua is a charming town, with its endless colonnaded streets, and while pilgrims flock in thousands to the tomb of St. Anthony, fewer visit the tomb of the great patron of medicine, St. Luke the Evangelist: how appropriate that around his tomb should have grown a city which became one of the world's leaders in the medical field. Last of all, we went to Venice: its ageless enchantment will never fade until the relentless sea will bury its crumbling walls.

By the time I left Mantua, I had come to know an enormous number of people (one of the virtues of a small community)—bus conductors, shopkeepers and bank clerks, besides most of the hospital staff, who were always helpful and charming and of whom I retain the happiest memories. Their talents lie in different fields from those of the English, and I feel that to begin to understand another people with a different outlook and a different religion, is a necessary prelude to an understanding of Human Nature, which is surely an aim towards which every man must strive.

LETTERS TO THE EDITOR

Dear Sir,

Your editorial of September has shamed me into writing to you.

First of all may I congratulate you and your immediate predecessors on the standard achieved. In my opinion the Journal has made a marked improvement over the last few years and is now a finished and interesting publication both from a general and medical point of view.

After 22 years of Otorhinolaryngological practice in Sydney, I transferred over here in 1950.

New Zealand was the first country in the British Commonwealth to establish a form of National Health and I do not propose to go into details over it. There was a recent article which gave the outlines of it in your journal. As with other similar systems there are serious weaknesses, but it appears to work better than the present one in England, I speak only on hearsay.

I liked the photo of "Freddie" Capps in the September issue, receiving the "Pennsylvania award". I have a vivid recollection of his amusing company on a trip to the International Congress in 1928 to Copenhagen.

In the December '57 issue were letters of disagreement between Malcolm Donaldson and a Dr. Gluckman of South Africa. This proved that the former has not lost his "punch". I remember him well as a most energetic and stimulating teacher.

I note that Geoffrey Bourne is having a farewell dinner on his retirement from the staff and Rupert Corbett's article on Charles Gordon Watson whose resident I was for a year. Rupert was then his Clinical assistant and a very able one.

I have not come across any other Bart's men in this country though I am sure there are some.

Yours faithfully,

R. H. BETTINGTON.

P.O. Box 61,
Napier.

The Editor,
St. Bartholomew's Hospital Journal.
Sir,

A. B. Anderson's article, in your November number, on past Teachers of Chemistry at the

Hospital and, in particular, the references to Edward Frankland and to Matthiessen, recall the share that another famous Chemist, my father, Professor Henry Edward Armstrong, Ph.D., L.L.D., F.R.S., took in the teaching of Chemistry at Bart's. I quote from his recently published Biography by J. Vargas Eyre (Ref. HENRY EDWARD ARMSTRONG 1848-1937. J. Vargas Eyre. Butterworth. Pp. 54 and 61.)

> "With his strong inclination towards physiology, it is not surprising that Henry Armstrong turned in the first instance to the hospitals as a possible place for his employment: indeed, these institutions in England were among the few giving instruction in chemistry. In this move one may well imagine that Frankland helped in securing an appointment to St. Bartholomew's Hospital soon after Henry's return to England. For although much ahead of his years, being only twenty-two at the time, he was considered young for dealing with undergraduate medical students. He was appointed to the Medical School under Dr. Matthiessen in 1870 and was in charge of the special classes in chemistry for students taking *Preliminary Science* and those proceeding to the *London University First M.B.* examinations. Between times, Armstrong and Matthiessen worked on the chemistry of alkaloids, having jointly settled upon an ambitious plan in investigation. Matthiessen, an overwhelming personality, died suddenly, at his own hands, in October of the same year. Referring to this occurrence later, Armstrong said, 'I should not easily have escaped his mastery; instead, through his death, I achieved independence'. Armstrong continued to teach chemistry at 'Bart's' for the next twelve years, gaining knowledge of medical students, ways of teaching and of the influence of the London University system . . . There was little scope at 'Bart's': all he had to do was to cram facts into his pupils in accordance with a carefully-drawn syllabus, and teach them the rudiments of chemical analysis according to a set plan. It was just a matter of getting them through the London University examination, not one of giving instruction in the principles of chemistry. All the same, he liked going to 'Bart's', where he had made many friends among the younger men in the medical profession. Many years later, when his third son Richard became a student at his old hospital, he experienced great satisfaction and pleasure."

My eldest brother, himself a distinguished chemist both in the industrial and scientific fields, was named after Edward Frankland. My own entry to Bart's was altogether fortuitous and not without an element of romance. Coming down from Trinity College, Cambridge, in the Autumn of 1907, I was completely at a loss what next to do, nor had I any guidance in the matter. To gain an Entrance Scholarship at a hospital was a matter of financial urgency and I sat for the examination in Anatomy and Physiology of the first hospital on the calendar, St. Bartholomew's. I shall always recall the Anatomy Viva at the hands of Addison and Waring, their distinguished appearance and their kindness. I was fortunate in being awarded the Schuter Scholarship.

Never before nor afterwards did I see my father so delighted as when I gave him the news that evening, for I had said nothing of my intentions. Then and there he told me, for the first time, something of his early experiences at Bart's and of his contemporaries, many of whom, Lauder Brunton, Norman Moore, Samuel West, D'Arcy Power, I came to know.

Thus I was happy in making some return to my father for his generosity in sending me to Cambridge.

Yours faithfully,

RICHARD R. ARMSTRONG.

Blackheath, London, S.E.3.

Dear Sir,

In the issue of your Journal for August 1958, is an article entitled "The Health Services of Victoria, Australia", by A. Dobbin. This article is interesting and presents a fair picture but contains a number of errors which I cannot let pass. These are under the heading "Research" on page 218. The statement "There is not much research activity in Victoria" would probably raise some eyebrows in Melbourne and is certainly an understatement. However, that could be a matter of opinion. It is in the list of medical journals that errors of fact appear. *The Australian and New Zealand Journal of Surgery* is published by the Royal Australasian College of Surgeons, not the Royal Australian College of Surgery. The *Australasian Annals of Medicine* is published by the Royal Australasian College of Physicians, not the Royal Australian College of Physicians. *The Australian Medical Journal* ceased publication in 1914, but even then was not published by the Australian Medical Association. There is not, and never has been, an Australian Medical Association. The journal which all the members of the British Medical Association in Australia receive by virtue of their membership is *The Medical Journal of Australia*. This is published weekly by the Australasian Medical Publishing Company Ltd., a non-profit making publishing company which is owned by the several branches of the British Medical Association in Australia. The fifth journal listed is the *Australian Journal of Experimental Biology and Medical Science*, not the *Australasian Journal of Experimental Biology and Medical Science*.

I hope that you will not think me pedantic for these corrections, but such errors of fact should not be allowed to occur without protest.

Yours very truly,

RONALD R. WINTON,
Editor.

The Medical Journal of Australia,
Seamer and Arundel Streets,
Glebe, Sydney.

Sir,

The delightful reminiscences of Dr. Geoffrey Bourne in the last Bart's Journal have prompted me to relate some of my own.

I am a South African. My first three years I did in Cambridge and went to St. Bart's in 1907, where I stayed till 1911 when I returned home. I am now

one of the oldest doctors still in active practice in the Union.

Most of the men Dr. Bourne mentions were there in my time. I dressed for Mr. C. B. Lockwood and Mr. L. B. Rawling and clerked for Dr. Herringham and his junior Dr. Drysdale (Dropsy).

It was necessary for the students to attend a certain number of lectures. The lecture attendant kept a register, and he was not averse (for a consideration) to make entries of absent students. These lectures were not always exciting, though interesting and instructive. I remember a lecture on Typhoid Fever by Dr. Norman Moore, the senior physician of the Hospital. When he discussed the diagnosis he began thus: " Gentlemen, with a sufficient want of intelligence any one disease may be mistaken for any other". The fear of haemorrhage and the greater fear of perforation of an intenstinal ulcer with a very high mortality made him prescribe a most rigorous diet namely whey only—a diet which no doctor would advocate today. The word *whey* he pronounced with an unusual accentuation of the *h*, almost like *gewy* with a gutteral *g* like *ch* in the Scottish work *loch*. By the way, he always used the old-fashioned wooden monaural stethoscope. Once he brought the famous Dr. James Mackenzie round, who demonstrated his polygraph on patients with severe heart disease. The electric cardiograph was then unknown. But the star lecturer was undoubtedly the surgeon Mr. Harrison Cripps, the uncle I believe of the far better known Sir Stafford Cripps of later days. He was an Irishman full of humour, and he wore a long black beard, which—so the story went—once got into the abdominal wound as he stooped to peer into the coeliac cavity. He was very partial to diseases of the rectum and anal canal, and " specialised " in this subject. No wonder the quip went round that in the colon one finds Lieberkühn's crypts and in the rectum Harrison Cripps ! The story is told that Lord X came to his consulting room and mentioned some anal or rectal trouble. He did not recognise his illustrious patient and said rather brusquely, " All right, all right; slip down your trousers". But as he saw the anus he immediately said, " I beg your pardon, my Lord; I did not recognise you". By their perineal areas ye shall know them !

I can still see him on the platform with a six-foot long pointer demonstrating how to pass a catheter sliding it through his one hand and tilting it as the catheter reached the prostatic area. The other lecture can never be forgotten: foreign bodies in the rectum. I think it was on this occasion that he opened his lecture by saying: " Gentlemen, just before I came in a student asked me to lecture on Gonorrhoea, but I told him to go and consult one of the junior surgeons". On the table he had half a dozen or more specimens from Bart's museum, which in the course of years had been removed from patients. Almost with each exhibit he related a dramatic, but undoubtedly purely fictitious story. There was a porcelain jar of the well-known Liebig's Extract—a cylinder about two inches in diameter and three inches long. How it got into the man's rectum is a mystery, but Mr. Cripp's version was this. The patient had noticed that fishermen put wet earth into jars overnight to attract earthworms, which were then used as bait. As he was suffering from worms a bright idea struck him. He filled the Liebig's jar with wet earth and somehow shoved it up his rectum to trap the worms ! But he found his way to the operation table instead. Cripps could not remove it until after a laparotomy he pushed down while his assistant pulled through the anus. Unfortunately the patient died later with worms and all.

Then there was the pear-shaped smooth stone, also with a very large base two to three inches in diameter. This man, according to the lecturer, had itching piles and he relieved this condition by rubbing and pushing the stone against his anus. Gradually the anal sphincter dilated as he sat on the stone at times, till one day the stone slipped through into the rectum. He left the Hospital but the stone remained behind as a novel neolithic advertisement for the cure or amelioration of pruritus ani.

Next Mr. Cripps showed a penny which had been swallowed by a boy, and had been removed by his house surgeon from the anal canal. As Bart's was then a free hospital for all Cripps dryly remarked: " Gentlemen, it took me a long time to persuade the Governors of the Hospital to exonerate my house surgeon for having extracted a fee from a patient".

Mr. L. B. Rawling's " Landmarks and Surface Markings " has been a good companion to me throughout the years. I remember his anger one day when he opened a woman with a distended abdomen. He had not seen the patient, but relied on the diagnosis of an abdominal tumour, probably an ovarian cyst, by his house surgeon. This gentleman had obviously not examined the patient with sufficient care and skill, and had been taken in by her story of amenorrhoea for over twelve months. Imagine Jumpy's consternation and anger when the tumour turned out to be a physiological one—a full term pregnancy ! That evening the woman was delivered of a baby.

Well, these remarks will suffice for the day. I may add some more later on. Those were good days at old Bart's.

Yours faithfully,

J. VAN SCHALKWIJK.

Somersetstrast 42,
Graff-Reinet,
Union of South Africa.

HOCKEY CLUB BALL

Whatever your age, wherever you are, don't forget the most important date in the Social Calendar, Friday, February 13th. Again to be held this year at College Hall. Only a few tickets left !

THE FOURTH INTERNATIONAL CONGRESS OF BIOCHEMISTRY

by **J. C. CRAWHALL and R. W. E. WATTS**

The Fourth International Congress of Biochemistry which met this year in Vienna covered most branches of the subject, and the purpose of this report is to bring to the notice of readers of the Journal some aspects of the scientific work of the Congress which we feel may be of general interest. It should be understood that the choice is an essentially personal one, for we have selected topics only from among the Symposia and Communications which we attended, and as the scientific business of the Congress was divided into eighteen sections which met simultaneously each morning and into twelve sections which met simultaneoulsy in the afternoons, adequate coverage, in the journalistic sense, is beyond our capabilities.

The opening session of the Congress included a lecture by E. Chargaff entitled " First steps towards a chemistry of heredity". Although we are far from being able to correlate chemical or physicochemical differences with heredity in even the simplest biological systems, it appears that the sequence of different nucleotide units within the nucleoside macromolecule may be the structural factor upon which the transmission of inherited characters by the cell depends. Later in the Congress, V. M. Ingram discussed the genetic control of protein structure with particular reference to haemoglobin a number of electrophoretically characteristic variants of which are known. It has been shown that the differences between the different haemoglobins are small in terms of the chemical structure of the whole molecule, although the differences in their biological behaviour may be great. For example, the only difference between normal haemoglobin (haemoglobin A) and sickle-cell haemoglobin (haemoglobin S) is that two valine residues occupy sites in the globin part of haemoglobin S which are occupied by glutamic acid residues in haemoglobin A. But, it is from this small change that all the manifestations of sickle-cell anaemia arise. Similar small differences exist between the other haemoglobins, fortunately the effects are no talways so serious. Combined researches by chemists and geneticists on these haemoglobin variants has shown that it is possible to relate changes in this protein with mutations in a gene and this, to quote Ingram " gives us greater confidence in the hypothesis that there is a direct correspondence between the structure of a gene and the structure of a polypeptide chain".

Until recently, little has been known concerning the precise mode of action of enzymes in which there is no prosthetic group to function as an active centre. Recent work reported by Edman and by Elliott indicates that the hydroxy-amino acid residues and the polypeptide configuration immediately around them may sometimes be of particular importance in this connection. B. L. Vallee discussed certain aspects of the chemistry of metalloenzymes with particular reference to yeast and liver alcohol dehydrogenases which are both zinc-proteins. He emphasised the importance of distinguishing between *intrinsic* zinc (4 atoms per molecule in the case of yeast alcohol dehydrogenase) which forms an essential part of the enzyme molecule and *extrinsic* zinc which may become bound to the protein molecule but which can be removed without depriving the enzyme of its biological acitivity. As in the case of the better-known zinc-enzyme carbonic anhydrase, we are still ignorant of the chemical nature of the groups to which the intrinsic zinc is bound or of the chemical configuration about the zinc atoms. Such information could be of great value in understanding precisely how these enzymes work. The isolation of a cadmium-protein from kidney cortex was also announced by Vallee and it may be that this metal will also prove to function as an enzyme prosthetic group.

R. G. Westall discussed argininosuccinic-aciduria, a newly identified metabolic error which occurs in the human subject and appears to be associated with mental defect. In these cases, argininosuccinic acid can be identified chromatographically in the blood, cerebrospinal fluid and urine, and can be

isolated in large amounts from the latter source. It is never normally present, and the observation that it accumulates possibly due to a genetically determined block in some normal metabolic sequence may well be of more fundamental importance than the addition of yet another " rare syndrome " to the text-books. J. E. Seegmiller and his colleagues who had studied the incorporation of ^{13}C-labelled 4-amino-5-carboxamide (a normal intermediate in uric acid biosynthesis) into the urinary uric acid in normal and gouty subjects, and the effect of feeding this compound on the incorporation of [^{15}N] glycine into the urinary uric acid, concluded that the fundamental defect in at least some gouty patients is a failure of the mechanism which regulates endogenous uric acid synthesis. Apart from these two papers and the work reported from the Medical Unit of this Hospital on the metabolic lesion in primary hyperoxaluria disappointingly little attention was paid to the Inborn Metabolic Errors which occur in man.

New work on the biosynthesis of vitamin B_{12} was reported by D. Shemin and his colleagues, it appears that δ-aminolaevulic acid (formed by the condensation of succinate and glycine under the influence of coenzyme A) which is a key intermediate in the synthesis of the pyrrole rings of the porphyrin moeity of haemoglobin is similarly concerned in the synthesis of the porphyrin-like part of the vitamin B_{12} molecule. This subject was reviewed later in greater detail by Kon and Pawekiewicz.

B. E. Wright discussed the coenzyme functions of pteroylglutamic (folic) acid, and H. R. V. Arnstein reviewed the apparently diverse biochemical functions (labile methyl group synthesis, nucleic acid synthesis, protein synthesis and the activation of certain sulphydryl group-containing enzymes) which have been attributed to cyanocobalamin (vitamin B_{12}) on the basis of microbiological studies, dietetic and other types of investigation on whole animals, and enzymological studies performed on the tissues of cyanocobalamin-deficient animals. Both folic acid and vitamin B_{12} are concerned with the metabolism of one-carbon units (formyl, hydroxymethyl and formamino residues). Thus, folic acid is concerned with the transfer of these units either at the oxidation level of formaldehyde as in the serine-glycine interconversion and in thymine biosynthesis, or at the level of formate as in purine biosynthesis and histidine catabolism; it is also concerned with their interconversion and reduction to methyl groups. Arnstein pointed out that the chemical structure of vitamin B_{12} is suggestive of an electron-transporting system so that this vitamin may be responsible for the oxidation-reduction of the intermediate compound formed by folic acid and the one-carbon unit, i.e. it ensures that the one-carbon unit which is transported by folic acid is available at the appropriate oxidation level (e.g. formaldehyde or formate) for the particular reaction sequence which it is to follow. Thus the close association between folic acid and vitamin B_{12} which is apparent at the clinical level has its counterpart in terms of cellular biochemistry.

W. E. Knox discussed the possible functions of vitamin C; despite our considerable knowledge concerning the overall effects of vitamin C deficiency and the obvious reducing properties of the vitamin, its precise coenzyme-role, if any, remains unknown. Even the action of ascorbic acid in *p*-hydroxyphenyl pyruvate oxidation does not appear to be a classical type of coenzyme effect. However, a protein fraction containing bound ascorbic acid has recently been isolated from liver tissue and further studies along these lines may prove rewarding. Vitamin C biosynthesis was reviewed by L. W. Mapson, who pointed out that the species (the guinea pig and the primates) which do not biosynthesise vitamin C lack only the enzymes necessary for the final step in the reaction sequence, namely the dehydrogenation of the saturated lactone precursor to the unsaturated lactone ascorbic acid.

G. Pincus opened the series of symposia on steroid biochemistry with a review of adrenocortical steroid biochemistry. The adrenocortical steroids are built up ultimately from units containing two carbon atoms (" acetate "), which join together to form cholesterol this is converted first to Δ-5-pregnendione and then to progesterone which gives rise to all the five sterioids which are normally produced by the adrenal cortex. The stages between acetate and cholesterol were not discussed by Dr. Pincus but other workers have shown that mevalonic acid (3-hydroxy-3-methyl-pentanoic acid) and squalene (an unsaturated hydrocarbon $C_{30}H_{50}$) are intermediates here. It was suggested that there may be an alternative pathway for progesterone synthesis which does not involve cholesterol. The adrenocorticotrophic hormone increases the

output of all the adrenocortical steroids except aldosterone, it has been suggested that this hormone acts by controlling the rate of conversion of cholesterol to progesterone, if this is so we must assume that a stage in aldosterone production beyond progesterone is rate-limiting. T. F. Gallagher began his account of some studies on adrenocortical hyperfunction in man by emphasising the large number of normal adrenal-hormone metabolites and the magnitude of the analytical problems involved in their separation. For example, following the administration of a physiological dose of [^{14}C] hydrocortisone to a normal subject at least fifteen ^{14}C-containing degradation products can be isolated from the urine. The steroid excretion pattern in cases of adrenocortical carcinoma is very variable as is the sensitivity of the tumour to adrenocorticotrophic hormone. Examples of Cushing's syndrome characteristically have a high output of hydrocortisone metabolites and a normal production of adrenal androgen (androsterone and aetiocholanolone) metabolites, the hypersecretion of hydrocortisone in the cases studied did not appear to constitute the full secretory capacity of the glands as judged by the effect of exogenous adrenocorticotrophic hormone. A series of cases of idiopathic hirsutism showed increased excretion of adrenal androgen metabolites, but only a slight rise in the metabolites of hydrocortisone; exogenous adrenocorticotrophic hormone and exogenous hydrocortisone increased and decreased the abnormal steroid excretion respectively. Patients with proven polycystic ovaries (Stein-Leventhal syndrome) did not appear to differ from the other members of this group as regards their steroid excretion patterns. The biochemical lesion in congenital adrenal hyperplasia appears to be a failure to complete the biosynthesis of hydrocortisone. The deficient supply of this hormone stimulates the output of adrenocorticotrophic hormone and more adrenal steroids, some of which are androgenic, are produced. A study of the urinary metabolites of (^{14}C) hydrocortisone in this disease has confirmed that hydrocortisone-degradation is essentially normal.

Although the formal meetings of the Congress were of great value and provided biochemical fare to suit all palates, it may be that the permanent value of such gatherings lies in the opportunity which they provide for informal discussion between investigators with common interests but different backgrounds and different ways of approaching their problems.

The authors are pleased to acknowledge their indebtedness to the Medical College of St. Bartholomew's Hospital for the financial support which enabled them to participate in the Congress.

RECENT PAPERS BY BART'S MEN

*BADENOCH, A. W. Urology. *Brit. J. clin. Pract.*, 12, Dec., 1958, pp. 894-6.

BAILEY, Esme J., (and Dungal, Niels). Polycyclic hydrocarbons in Icelandic smoked food. *Brit. J. Cancer*, 12, Sept., 1958, pp. 348-50.

*BETT, W. R. George Joyliffe (1621-58) and the lymphatics. Otto Hildebrand (1858-1927) of "Hildebrand's operations." *Med. Press*, 240, Nov. 12, 1958, p. 1093.

*——. Hermann Rieder (1858-1932) of "Rieder's contrast meal." Edmund Gayton (1608-66) physician, poet, and pauper. *Med. Press*, 240, Dec. 3, 1958, p. 1164.

*——. John Sheldon (1752-1808). *Discovery*, 19, Nov., 1958, pp. 447-8.

——. John Sibthorp, F.R.S., M.D., physician and botanist (1758-96). *Med. Press*, 240, Oct., 29, 1958, p. 1036.

*——. Urinary tract infections and the new oral nitrofuran "furadantin." *Madras clin. J.*, 24, June, 1958, pp. 291-2.

BRAIMBRIDGE, M. V., (and others). The treatment of ventricular septal defect. *Brit. med. J.*, Dec. 6, 1958, pp. 1369-77.

BROOKE, B. N. Ulcerative colitis. *J. Ind. med. Prof.*, 5, Oct., 1958, pp. 2358-9, 2356.

*BROWN, J. R. Factors involved in the causation of weight lifting accidents. *Ergonomics*, 2, Nov., 1958, pp. 117-8.

*CAPENER, N. "Forty years on." *J. Bone Jt. Surg.*, 40B, Nov., 1958, pp. 615-17.

*CAPPS, F. C. W. Caldwell-Luc and allied operations. *In* Rob, Charles, and Smith, Rodney. *Operative surgery*, vol. 8, 1958, pp. 91-7.

*CHOLMELEY, J. A. Hallux valgus in adolescents. *Proc. roy. Soc. Med.*, 51, Nov., 1958, pp. 903-6.

——,(and others). Tuberculosis of the knee: results with chemotherapy between 1948 and 1956. *Tubercle*, 39, Feb., 1958, pp. 1-6.

*COHEN, E. Lipman. Some new treatments for psoriasis. *Practitioner* 181, Nov., 1958, pp. 618-20.

*——,(and Cohen, J. H. Lipman). Doctor Marat and his skin. *Med. Hist.*, 2, Oct., 1958, pp. 281-6.

COMMINS, B. T., and LAWTHER, P. J. Volatility of 3, 4-benzpyrene in relation to the collection of smoke samples. *Brit. J. Cancer*, 12, Sept., 1958, pp. 351-4.

*CURWEN, M. P., (and others). The sensitivity of human dentin. *J. dent. Res.*, 37, Aug., 1958, pp. 669-77.

——, *see also*, OSWALD, N. C., and others.

DALY, M. de Burgh (and Scott, Mary J.). The effects of stimulation of the carotid body chemoreceptors on heart rate in the dog. *J. Physiol.*, 144, Nov., 1958, pp. 14-166.

DIMOLINE, Ann, *see*, ROBINSON, Alice M., and others.

HADFIELD, J. The surgery of the endocrine system in carcinoma of the breast. *Postgrad. med. J.*, 34, Dec., 1958, pp. 628-31.

*HANCOCK, P. E. Thompson. Gastroscopy today. *Med. Press*, 240, Aug. 13, 1958, pp. 770-773.

*HOWELL, Trevor. Analysis of falls in old people. *J. Amer. Geriat Soc.*, 6, July, 1958, pp. 522-5.

——. The prevention and care of respiratory infections in the elderly. *Practitioner*, 181, Dec., 1958, pp. 713-8.

*——, (and others). Beriberi and thrombocytopenic purpura in a man of 81. *Geriatrics*, 13, Aug., 1958, pp. 545-6.

JOEKES, A. M., (and others). The nephrotic syndrome: a study of renal biopsies in 20 adult patients. *Quart. J. Med.*, 51, Oct., 1958, pp. 495-516.

JONES, D. G., *see* ROBINSON, Alice M., and others.

KEELE, K. D., (and others). Prognostic and diagnostic value of serum glutamic oxaloacetic transaminase in suspected cardiac infarction. *Lancet*, Dec. 6, 1958, pp. 1187-9.

KEYNES, Milo, (and others). Primary chief-cell hyperplasia of the parathyroid glands: a new entity in the surgery of hyperparathyroidism. *Ann. Surg.*, 148, Sept., 1958, pp. 375-88.

*LAWTHER, P. J. Atmospheric pollution and disease. *Times Science Review*, Winter, 1958, pp. 10-12.

——, *see also*, COMMINS, B. T., and ——.

*LEHMANN, H., and SIMMONS, P. H. Sensitivity to suxamethonium aponoea in two brothers. *Lancet*, Nov. 8, 1958, pp. 981-2.

*——,(and others). An abnormal haemoglobin in a Chinese: haemoglobin G. *Nature*, 182, Aug. 16, 1958, pp. 460-1.

*——,(and others). Three varieties of human haemoglobin D. *Nature*, 182, Sept. 27, 1958, pp. 852-3.

*MOURANT, A. E., (and others). Serum containing three Rh auto-haemagglutinins. *Brit. med. J.*, Nov. 22, 1958, pp. 1273-4.

OSWALD, N. C., (and others). Pneumonia complicating Asian influenza. *Brit. med. J.* Nov. 29, 1958, pp. 1305-11.

*PLEYDELL, M. J., (and Hall-Turner, W. J. A.). An outbreak of nephritis in Northamptonshire. *Brit. med. J.*, Dec. 6, 1958, pp. 1382-3.

PRANKERD, T. A. J., (and others). Haemoglobin-H disease. *Brit. med. J.*, Dec. 6, 1958, pp. 1389-90.

ROBINSON, Alice M., (and others). Consideration of some types of adrenal tumours. *Ciba Foundation Colloquia on Endocrinology*, 12, 1958, pp. 137-49.

ROSS, Sir James Paterson. From Trade Guild to Royal College. *Sydney Univ. med. J.*, 48, 1958, pp. 53-7.

SHOOTER, R. A. Spread of infection in hospitals. *Ann. roy. Coll. Surg. Engl.* 23, Nov., 1958, pp. 312-20.

——, *see also*, OSWALD, N. C., and others.

SIMMONS, P. H., *see* LEHMANN, H., and ——.

TODD, Ian P. Management of a colostomy. *Brit. Encycl. med. Pract. Int. Suppl.*, 194, Nov., 1958, pp. 5-7.

TODD, R. McLaren. Trial of an iron chelate in paediatrics. *Practitioner*, 181, Dec., 1958, pp. 736-8.

*TURNER, J. W. Aldren. Drug treatment of neuritis. *Brit. med. J.*, Dec. 6, 1958, pp. 1403-4.

*WEBER, F. Parkes. The advent of life: an agnostic's dream about the creation. 1958.

*——. Writings published since 1943.

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EXAMINATION SUCCESSES

UNIVERSITY OF LONDON

Final M.B., B.S. Examination, October, 1958

Pass

Bannerman-Lloyd, F.
Cawley, M. I. D.
Cocker, W. J. B.
Davies, D. J. C.
Fenn, P. J.
Laurent, J. M.
Mann, P. E.
Marston, M. S.
Neely, J. A. C.
O'Keeffe, C. J. M.
Phillips, R. M.
Pilkington, R.
Price, D. J.
Richards, H. M.
Seeman, H. M. I.
Simpson, R. I. D.
Waters, W. E.

Supplementary Pass List

Part I
Birt, A. M.
Brookes, B. M.
Collier, B. R.
Davies, D. G.
Hayle, T. H.
Johnson, T. O.
Owens, J.
Sime, M. O.
Stubbings, R.
Tyrrell, M. J.
Warrander, A.
Wills, G. T.
Woolmore, M. J. F.
Wright, D. S.

Part II

Part III
Brown, E. M.

Part IV
Brown, E. M.
Gould, A. M.

ROYAL COLLEGE OF SURGEONS

The following candidates were successful in the recent Primary Fellowship Examination conducted by the Royal College of Surgeons of England in November, 1958 :

Crosiill, M. L.
Rothwell-Jackson, R. L.
Salmon, J. D.
Small, G. I.
Warlow, P. F. M.

D.Obst. R.C.O.G.
Kielty, M. G.

Forthcoming Lecture

The Frederic Hewitt Lecture will be delivered on March 18th at the Royal College of Surgeons by DR. C. LANGTON HEWER.

Forthcoming Honour

University of Leeds. On May 14th the honorary degree of D.Sc. will be conferred on SIR RUDOLF PETERS.

SPORTS NEWS

RUGBY FOOTBALL

Bart's v. K.C.S. O.B. Saturday, Nov. 22nd, at Richmond Park. Won 6—3.

During the Christmas period, the pre-clinical holidays have in the past weakened the 1st XV but unfortunately this year injuries have taken a greater toll of our resources.

Against a very keen and fit K.C.S. team, Bart's were forced to fight hard to notch a victory. Soon after the game started, Britz aggravated a previous shoulder injury and had to move from fly-half to wing. From then on the back line had a disjointed look and this was never really overcome.

The score was opened by a penalty from J. H. Pennington, making the half-time score 3—0 to Bart's

K.C.S. replied with a try after an orthodox passing movement. Bart's suddenly woke up and from a line out on the 10 yard line D. A. Richards broke clear and the forwards interpassed delightfully, taking play up to the 25. The ball was quickly passed out to the threes and J. Stevens ran outside his wing to score a great try. The final score was 6—3 in Bart's favour.

Team: D. Gau; I. R. Smith, A. T. Letchworth, J. Stevens, G. J. Halls; M. Britz, A. P. Ross; B. O. Thomas, J. W. Hamilton (Capt.), B. Lofts; J. H. Pennington, W. P. Boladz; R. P. Davies, D. A. Richards, J. C. Mackenzie.

Bart's v. Stroud. Saturday, November 29th. Lost 6—9.

The game was played under depressing conditions with heavy mud underfoot and driving rain.

Honours were even for most of the first half with both packs dominating the play. Stroud were well held until R. R. Davies received a back injury and had to retire. Immediately Stroud scored an unconverted try and led 3—0 at half time.

After the interval R. Davies returned and soon initiated the break that resulted in Bart's equalising, but the heavier Stroud forwards were driving the Hospital to the defensive and scored a further try and penalty goal.

John Stevens kicked a penalty goal to reduce the arrears.

Team: D. Owen; N. Burbridge, M. Britz, J. Stevens, G. J. Halls; R. R. Davies, A. P. Ross; B. O. Thomas, J. W. Hamilton (Capt.), B. Lofts; D. A. Richards, M. Harries; J. C. Mackenzie, R. P. Davies, G. Randle.

Bart's v. Esher. Saturday, December 6th. Lost 0—19.

This was played on the day after the rugger ball so perhaps this is some excuse for the magnitude of the defeat that Bart's suffered at the hands of Esher.

A very fine Esher side with a strong vigorous pack led ably by Downey the former Cambridge captain proved to be too strong for Bart's.

The Esher fly half made break after break setting his fast back line into action which made numerous successful sorties on the Hospital line.

Team: D. Owen; R. M. Phillips, J. Stevens, M. Britz, G. J. Halls; R. Bonner Morgan, W. H. C. Berry; B. O. Thomas, J. W. Hamilton (Capt.), B. Lofts; M. Harries, W. P. Bolaz; P. D. Moynagh, D. A. Richards, G. H. Randle.

Saracens v. Bart's. Saturday, December 13th. Won 0—3.

Bart's repeated their performance of last season in beating the Saracens at Southgate by a penalty goal kicked by J. H. Pennington in the second half of the game.

It was obvious from the start that the heavy muddy conditions were going to lead to a close forward game. The strong Saracens pack although doing well in the tight scrums were unable to match the jumping of Boladz and the close binding of the front row in the lineouts.

The Saracens halves were unable to control the slippery ball as well as the Bart's pair and as a result were frequently caught in possession by the Bart's back row.

Both packs were very quickly round the loose ball and in the second half Randle and Richards made some well controlled front rushes down the touchline.

The Bart's penalty came half way through the second half when a Saracen forward had failed to release the ball after a tackle and the score remained at 3—0 at the close.

Of the backs Britz and Richards combined well and the wings, Halls and Smith, made good runs.

Team: A. P. Ross; I. R. Smith, A. T. Letchworth, J. Stevens, G. J. Halls; M. Britz, B. Richards; B. O. Thomas, J. W. Hamilton, B. Lofts; J. H. Pennington, W. P. Boladz; R. P. Davies, D. A. Richards, G. H. Randle.

★

WOMEN'S HOCKEY

Bart's v. Wimbledon 2nd XI. Saturday, November 29th. Home. Won 8—1.

Wimbledon played this match one short all the time and although Bart's played well they were never very hard pressed. S. Cotton tackled well in defence, J. Hall passed well to the forwards and J. Arnold played particularly well on the right wing. Once the defence found themselves right out of position and the Wimbledon forwards took advantage of this and scored. Otherwise our forwards had most of the ball and scored 8 goals by the end.

Team: I. Tomkins; B. Barnard, S. Cotton; M. Childe, J. Hall, E. Knight; J. Arnold, J. Hartley, S. James, S. S. Minns, J. Swallow.

Goals: S. Minns (3), J. Arnold, S. James, J. Hartley (3).

Bart's v. K.C.H. Saturday, November 8th. Home. Won 10—2. U.H. Cup Match.

Bart's played well from the start, and it was the first time this season that we really played well

together. We pressed hard and the forwards had most of the play. The halves backed up well and the backs cleared well when necessary. By half time the score was 5—0. After half time K.C.H. pressed for a while and with large gaps in our defence broke through and scored twice. Our forwards then took command of the game and working well together made the score 10—2 by the end.

Team: I. Tomkins; J. Tufft, T. Coates; M. Childe, E. Knight, S. Cotton; J. Arnold, J. Hartley, S. Minns, J. Chambers, J. Swallow.

Bart's v. London School of Economics. Saturday, November 15th. Away. Won 17—0. (1st round University tournament.)
Just made it !

Team: I. Tompkins; J. Tufft, T. Coates; M. Childe, J. Hall, E. Knight; J. Arnold, J. Hartley, S. Minns, J. Chambers, J. Swallow.

Goals: S. Minns (2), J. Swallow, J. Arnold, J. Chambers and J. Hartley (13 between them).

Bart's v. Lensbury 1st XI. Saturday, November 22nd. Home. Won 5—3.

A fast, hard match in which everyone played well. The forwards pressed hard in the circle and made the most of their opportunities. Occasionally the defence, because they were not marking or covering well enough, found the Lensbury forwards breaking right through and scoring. The result was uncertain right to the end and Bart's did very well to win 5—3.

Team: I. Tomkins (capt.); J. Tufft, T. Coates; J. Hall, B. Barnard, E. Knight; S. Cotton, J. Hartley, S. James, S. Minns, J. Swallow.

Bart's v. University College. Wednesday, November 26th. Away. Won 4—3.

This match was played in very poor light with a continual drizzle but despite this proved to be a very good game in which all the team played very well. After a very early goal by U.C. Bart's settled down and with the forwards working well together we scored. S. Minns then took the ball down himself breaking three defence and scored again. The game became very open for a while—and as fast as the pitch would allow. Just before half time J. Swallow ran down the wing, shot hard from the edge of the circle, the goalie got a foot to it, but another forward managed to push it in. After half time U.C. had most of the ball and the defence, I. Tomkins particularly, played very well to keep the score at 3—3. Just before the final whistle Bart's scored again to make the score 4—3.
Team: I. Tomkins (capt.); S. Cotton, T. Coates; M. Childe, J. Hall, E. Knight; M. Robertson, J. Hartley, A. Sinclair, S. Minns, J. Swallow.
Goals: S. Minns (2), J. Hartley (2).

★

BRIDGE

One of the most fascinating aspects of the game of Bridge is that there is always a possibility that the Goddess of the Cards is about to drop a plum into your pocket. The story of such a plum was described in the December *Journal*, but they do not always occur in Slam Contracts. It will be a long time before South forgets the following hand which occurred in a hard fought rubber, both sides vulnerable and penalties piled high above the line.

	S. J x x H. 8 x x D. 8 x x C. K J 10 x North	
S. Q x x H. x x x D. K Q x C. x x x x	West	East S. 10 x x H. A Q 10 x x D. A 10 C. Q x x
	South S. A K x x H. K J D. J 9 x x x C. A x	Dealer South

South	West	North	East
1D	—	—	1H
1NT	Double	All pass	

The only comment to be made on the bidding is that made by East at the end of the hand. He told his partner that if West doubles he must lead a Heart but if he is going to lead a Spade he must not double.

However, West doubled and led a small Spade, and South inspected dummy gloomily. In spite of the happy opening lead, Hearts were sadly frail, but declarer brightened when the Jack of Spades held the first trick. He played a small Club to the Ace and a small Diamond from his own hand. This gave West a chance to commit his third error and hop up with the Queen, dropping his partner's Ten. After some thought West now played another small Spade which declarer won gratefully with the Ace, and played a low Diamond. Convinced that declarer was up to some dirty work West went up with the King and East collected the trick with the Ace and led the Ten of Spades to what he felt was partner's five card suit.

South took the King and crossed to the Eight of Diamonds to lead a small Heart, going up with the King when East played small, and then cashed his two Diamond winners.

This was the end-game.

	S. — H. — D. — C. K J 10 North	
Immaterial		East S. — H. A D. — C. Q x
	South S. x H. J D. — C. x	

When declarer led the thirteenth Spade East was caught in an automatic Heart—Diamond Squeeze, and One No-Trump was therefore made with four doubled overtricks.

South said nothing. West said nothing. North inquired whether he should have redoubled. East spoke at length. It was a happy moment.

G.F.A.

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BOOK REVIEWS

MUIR'S TEXTBOOK OF PATHOLOGY revised by D. F. Cappell. Seventh Edition. **Published by Edward Arnold, 1958.** Price 70/-.

Seven years have passed since Professor Cappell undertook the last revision of this well-known textbook, and the considerable expansion of pathological knowledge during this time is reflected in the increased size of the present edition, now brought up to date by the same author. Inevitably, the cost of the book has risen substantially—and disproportionately to the increase in size, though it is only fair to state that there has been a desirable improvement in the quality of the paper used.

The general arrangement remains the same and, for the most part, the new information has been grafted on to the previous text, though some parts of the book, for example, the chapter on endocrine glands, have been largely rewritten. A number of improvements might be mentioned. In chapters 6 and 7 the unsatisfactory classification of tumours into "histiomata" and "cytomata" has been dropped, and the first of these chapters (a very long one) is devoted to tumour behaviour and morphology, whilst the second is concerned with aetiology.

The illustrations, an important part of any pathology textbook for undergraduates, are mainly clear and well chosen, but still some of the very low-power photomicrographs suffer from lack of definition, and a higher magnification might at times have been used with advantage.

The revision of an old textbook covering such a wide field presents great difficulties if a balanced presentation of the subject is to be achieved, and almost inevitably some subjects will not get the attention they deserve. Thus, while bacterial infection is adequately covered in the introductory chapters, the general characteristics of virus infections, including such important concepts as cytotropism, receive no mention. On the whole, however, it may be stated that the revision has been successful in bringing the book up to date, whilst retaining the good qualities of earlier editions, and there is little doubt that "Muir" will continue to be deservedly popular as a standard undergraduate textbook.

PRACTICAL BIOLOGY for Advanced Level, Medical and Intermediate Students. Volume II. Practical Botany. By. C. J. Wallis. Fourth edition. **London, William Heinemann.** 1958. Pp. x, 173. 17/6.

Previously published in one volume this popular textbook is now divided into two volumes, the other being devoted to *Practical Zoology*. It is an adequate laboratory manual for use in preparation for many examinations, including pre-medical.

The book is well-produced, and the judicious use of heavy type, and suitable illustrations render this an adequate text for the purpose intended.

LECTURE NOTES ON MIDWIFERY. By T. F. Redman, F.R.C.S., M.R.C.O.G. Pp. 220. 12/6

This book consists of the author's notes for a course of lectures to pupil midwives. These notes are published for the benefit of busy consultant obstetricians who want a ready-made lecture summary, and as a source of tabulated knowledge for pupil midwives or medical students. The material makes it clear that Mr. Redman is a very thorough and systematic lecturer using the amount of dogma appropriate to that method of teaching. Whether such bare notes of a lecturer, however thorough, warrant publishing or justify the claims of usefulness set out in the preface is doubtful. There is no halfway house between a good lecture and a good textbook; the methods are complementary. However, for those who want to board the subject at a whistle-stop this notebook might be very useful.

E. A. J. ALMENT.

A HANDBOOK OF OBSTETRICS AND GYNAECOLOGY FOR NURSES. By Douglas G. Wilson Clyne. **Publishers: John Wright & Sons Ltd.**

The author indicates in his preface that his book is written for the examination candidate, and that his condensed style and tabulation have been adopted with this purpose in mind. He has covered the General Nursing Council's syllabus with great thoroughness, and his handbook is full of accurate information succinctly expressed.

The viewpoint, naturally, is that of the doctor rather than the nurse; for instance, the account of pre-eclamptic toxaemia begins with a description of the post-mortem findings. It would also be helpful to give the approved names for such drugs as "moryl" and "medinal" which are unknown in hospitals supplied by other drug houses.

It is very disappointing to read directions for nursing techniques such as catheterization, douching and post-natal perineal toilet, that begin, "The nurse scrubs up for the regulation 10 minutes". There is no such regulation, and if there were it would not be kept. No nurse performing the perineal toilet for a ward of lying-in patients has ever scrubbed her hands for 10 minutes before attending to each. Non-touch techniques with forceps can be used for all the procedures mentioned, and these are efficient, aesthetic, and capable of being performed with speed and attention to detail even under the pressure from time felt in all nursing duties. It is important that methods required by surgeons of nurses should be demonstrably the best in practice, and then they will be meticulously performed.

W. E. HECTOR.

VISCOUNT ADDISON: LEADER OF THE LORDS. R. J. Minney. 256 pp., illus. **Odhams Press.** (1958). 25/-

The political career of Viscount Addison was remarkable by any standards, and has particular significance to this Hospital on account of his early associations both as student and lecturer. No other medical man, having achieved distinction in his own field, has forsaken it to achieve so many honours, including those of Viscount, Knight of the Garter, and Leader of the House of Lords.

Viscount Addison of Stallingborough (1869-1951) died at the age of 82, and few Bart's men will have recognised him as one of them. He qualified here in 1891, proceeding to M.D. in 1893, and the Fellowship of the Royal College of Surgeons two years later. Christopher Addison taught anatomy at Sheffield and Charing Cross, and was Lecturer on Anatomy at Bart's from 1907-1913, but had entered politics in 1910. He edited the twelfth edition of Ellis's *Demonstrations of anatomy*, 1905, and was the author of several papers in the *Journal of Anatomy* which were reprinted in book form as *On the topographical anatomy of the abdominal viscera in man*, 1901. He is remembered eponymously in anatomical terminology by " Addison's transpyloric plane".

This biography is mainly concerned with Viscount Addison's political career, to which his life was mainly devoted, and is based upon his private papers, with the co-operation of many distinguished persons who were associated with his work. The reviewer likes a biography to commence with the birth of its subject and to proceed chronologically. This one begins in 1937, reaches 1951 on page 96, and Christopher Addison is born on page 99 ! This journalistic touch makes it difficult to visualise the development of the individual, and to maintain events in their correct perspective.

One cannot resist speculating upon the ultimate results had Christopher Addison remained an anatomist or surgeon. A brilliant career without doubt, and the highest honours in the profession as a matter of course. But he chose politics and despite several setbacks achieved a unique distinction for a medical man. He even served as Minister of Health !

The book is well illustrated and produced, but the index is amateurish.

J.L.T.

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